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1 Orton neither discloses nor suggests any such subject matter. In fact, it  
2 appears that the Office is in agreement with this statement. For example, in  
3 addressing a claim (claim 7) that includes a recitation that embraces the notion of  
4 remoting, the Office simply states that "Orton is silent with respect to instantiating  
5 a plurality of programming objects across a machine boundary...however, it  
6 would have been obvious...to make this modification to provide objects that  
7 communicate across machine boundaries." (See, e.g. rejection of claim 7, page 5  
8 of present Office Action).

9 As an aside, Applicant respectfully points out that this line of reasoning is  
10 in direct contravention with the guidance the Federal Circuit has provided with  
11 respect to making out a *prima facie* case of obviousness. Orton neither discloses  
12 nor suggests the subject matter of claim 1, as amended. Accordingly, for at least  
13 this reason, this claim is allowable.

14 **Claims 2-13** depend either directly or indirectly from claim 1 and are  
15 allowable as depending from an allowable base claim. These claims are also  
16 allowable for their own recited features which, in combination with those recited  
17 in claim 1, are neither shown nor suggested in the references of record, either  
18 singly or in combination with one another.

19 Further, with respect to claim 7 which recites "instantiating a plurality of  
20 programming objects across a machine boundary", the Office notes that Orton is  
21 silent in this regard. The Office goes on to state, in a conclusory fashion, that it  
22 would have been obvious to make this modification to provide objects that  
23 communicate across machine boundaries. Applicant strongly disagrees with and  
24 traverses the Office's conclusory and unsubstantiated argument.  
25

1 In order to modify a particular reference under §103(a), the Federal Circuit,  
2 through its body of case law, has stated that there must be *particular findings* as to  
3 why the skilled artisan would be motivated to make such a modification without  
4 any knowledge of Applicant's disclosure. Here, the Office has not made any  
5 particular findings whatsoever, but has simply used Applicant's disclosure to  
6 make a hindsight, conclusory and unsupported statement with respect to the  
7 subject matter recited in claim 7. Accordingly, the Office has failed to establish a  
8 *prima facie* case of obviousness and as such, this claim is allowable.

9 **Claim 14** has been amended and, as amended recites a method of factoring  
10 operating system functions comprising [amended language appears in bold italics  
11 below]:

- 12 • factoring a plurality of operating system functions that are used in  
13 connection with operating system resources into first groups based  
14 upon first criteria;
- 15 • factoring the first groups into individual sub-groups based upon  
16 second criteria; and
- 17 • assigning each sub-group to its own programming object interface,  
18 wherein a programming object interface represents a particular  
19 object's implementation of its collective methods effective to  
20 provide an object-oriented operating system, *wherein individual  
21 objects having associated programming object interfaces are  
22 configured to be instantiated throughout a remote computing  
23 system.*

24 As noted above, Orton neither discloses nor suggests a method that factors  
25 operating system functions, as recited in this claim, where *individual objects  
having associated programming object interfaces are configured to be  
instantiated throughout a remote computing system.* Accordingly, for at least  
this reason, this claim is allowable.

1       **Claims 15-23** depend either directly or indirectly from claim 14 and are  
2 allowable as depending from an allowable base claim. These claims are also  
3 allowable for their own recited features which, in combination with those recited  
4 in claim 14, are neither shown nor suggested in the references of record, either  
5 singly or in combination with one another.

6       **Claim 24** has been amended and, as amended recites a method of factoring  
7 operating system functions comprising [amended language appears in bold italics  
8 below]:

- 9
- 10       • factoring a plurality of operating system functions into interface  
11 groups based upon the resources with which a function is associated;
- 12       • factoring the interface groups into interface sub-groups based upon  
13 each function's use of a handle that represents a resource; and
- 14       • organizing the interface sub-groups so that at least one of the  
15 interface sub-groups inherits from at least one other of the interface  
16 sub-groups, *individual interface sub-groups being associated with*  
17 *individual programming objects that can be instantiated*  
18 *throughout a remote computing system.*

19       Orton neither discloses nor suggests a method that factors operating system  
20 functions as recited in this claim, as amended. Accordingly, for at least this  
21 reason, this claim is allowable.

22       **Claims 25-28** depend from claim 24 and are allowable as depending from  
23 an allowable base claim. These claims are also allowable for their own recited  
24 features which, in combination with those recited in claim 24, are neither shown  
25 nor suggested in the references of record, either singly or in combination with one  
another. Additionally, given the allowability of claim 24, the §103(a) rejection of

1 claim 26 over the combination with Familiar is not seen to add anything of  
2 significance.

3 **Claim 29** recites an operating system application program interface  
4 embodied on a computer-readable medium comprising a plurality of object  
5 interfaces. Each object interface is recited to be associated with an object that  
6 includes one or more methods that are associated with and can call functions of an  
7 operating system that does not comprise the object interfaces. Individual objects  
8 are recited to be configured to be instantiated in process, locally, or *remotely*.

9 In the present Office Action, the Office does not address the recited subject  
10 matter that appears in the bold italics above. Regardless, nowhere does Orton  
11 disclose or even suggest any such subject matter. Accordingly, this claim is  
12 allowable.

13 **Claims 30-35** depend either directly or indirectly from claim 29 and are  
14 allowable as depending from an allowable base claim. These claims are also  
15 allowable for their own recited features which, in combination with those recited  
16 in claim 29, are neither shown nor suggested in the references of record, either  
17 singly or in combination with one another.

18 **Claim 36** has been amended and, as amended recites an operating system  
19 comprising [amended language appears in bold italics below]:

- 20
- 21 • a plurality of programming objects having interfaces, wherein the  
22 programming objects represent operating system resources, and  
23 wherein the interfaces define methods that are organized in  
24 accordance with whether they create an operating system resource or  
25 not;
  - wherein the programming objects are configured to be called either  
directly or indirectly by an application; and

- wherein the methods are configured to call operating system functions responsive to being called directly or indirectly by an application;
- *said programming objects being configured to be instantiated throughout a remote computing system.*

Orton neither discloses nor suggests any such subject matter. Accordingly for at least this reason, this claim is allowable.

**Claims 37-40** depend from claim 36 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 36, are neither shown nor suggested in the references of record, either singly or in combination with one another. In addition, given the allowability of claim 36, the rejection of claim 40 under §103(a) over the combination with Familiar is not seen to add anything of significance.

**Claim 41** has been amended and, as amended recites a method comprising [amended language appears in bold italics below]:

- defining a plurality of programming object interfaces that define methods that correspond to the operating system functions, wherein programming objects that support the interfaces are callable either directly by an application that makes object-oriented calls, or indirectly by an application that makes function calls, *said programming objects being configured to be instantiated throughout a remote computing system;*
- calling a programming object interface either directly via an object-oriented call, or indirectly via an indirection that transforms a function call into an object-oriented call; and
- responsive to said calling, calling an operating system function with a method of the programming object that supports said programming object interface.

1 Orton neither discloses nor suggests the subject matter of this claim as  
2 amended. Accordingly, for at least this reason, this claim is allowable.  
3

4 **Conclusion**

5 All of the claims are in condition for allowance. Accordingly, Applicant  
6 requests a Notice of Allowability be issued forthwith. If the Office's next  
7 anticipated action is to be anything other than issuance of a Notice of Allowability,  
8 Applicant respectfully requests a telephone call for the purpose of scheduling an  
9 interview.  
10

11 Respectfully Submitted,

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13 Dated: 7/7/03

14 By: 

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